

Antenna

Specifications

At Wavelink, our aim is to provide timely and comprehensive services to our customers. If you require any assistance, please contact our headquarters:

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Wavelink Certifications:



Wavelink Partners:

Skyworth **NARI**

flex

 **HUAWEI**

 **VVDN**
TECHNOLOGIES

Tenda **Infinova**

dji

Hikvision

JABIL

Catalogue

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Wavelink

1 Product Description

This wavelink antenna covers 5G NR bands and is compatible with 4G/3G/2G bands.

2 Product Features

Easy to install
High efficiency
Removable



3 Product Specifications

Passive Electrical Specifications

Frequency Range	698-960 MHz 1710-5000MHz
Input Impedance	50 Ω

VSWR	≤ 3
Gain	≤ 5 dBi
Polarization Type	Linear

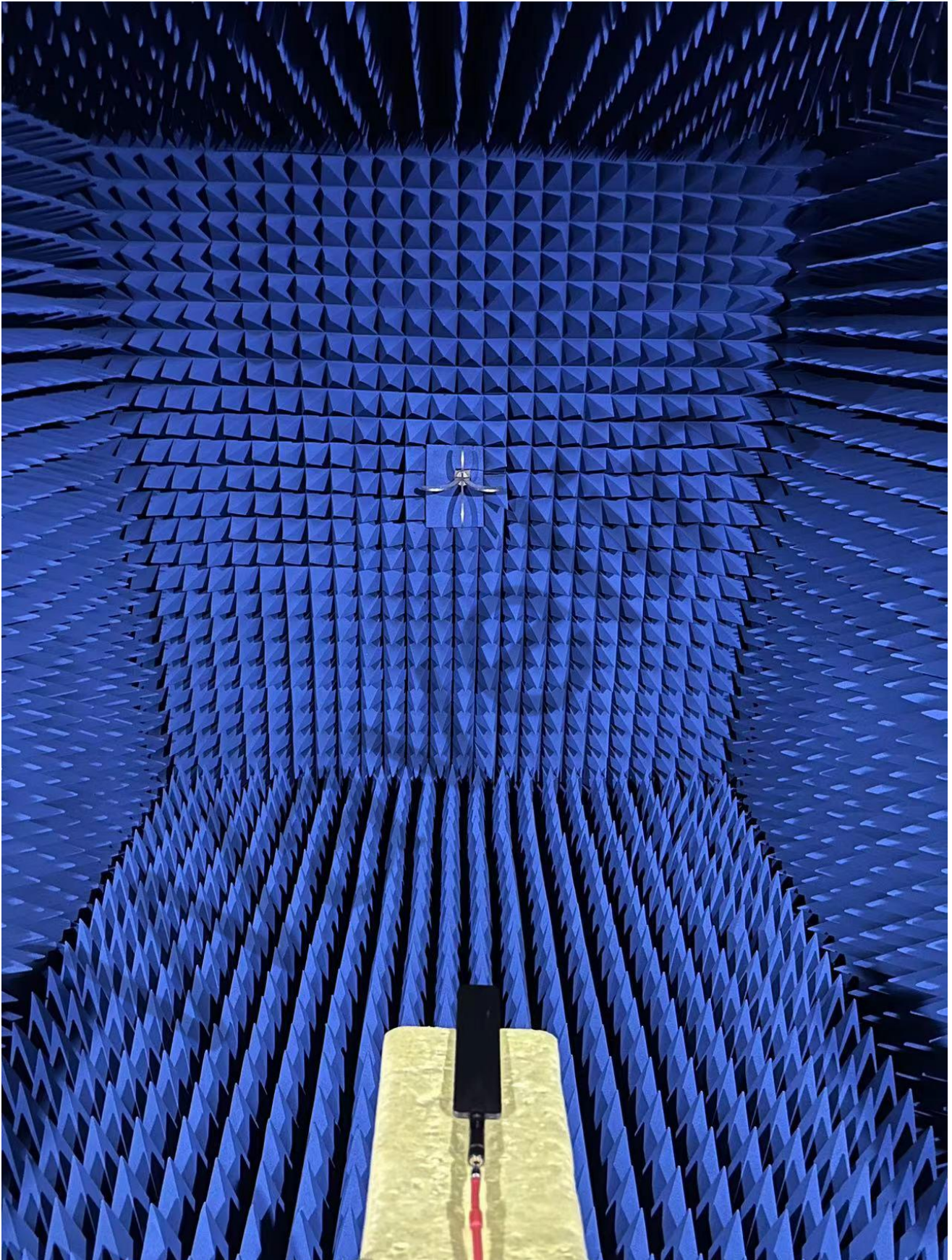
Mechanical Specifications

Antenna Size	196mm × 28mm
Connector Type	SMA
Working Temperature	-40 °C to +85 °C
Radome Color	Black

4 Overall Performance

KEYSIGHT VNA Network Analyzer E5071C 100 kHz – 8.5 GHz







Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	Max (dB)	Min (dB)	Directivity (dBi)	AttH (dB)	AttV (dB)
690	35.37	-4.51	-1.59	-3.74	-1.59	-35.49	2.92	38.69	38.84
700	25	-6.02	-2.5	-4.65	-2.5	-27.69	3.52	38.16	38.52
710	14.87	-8.28	-4.34	-6.49	-4.34	-26.5	3.94	37.78	38.21
720	25.21	-5.98	-4.32	-6.47	-4.32	-27	1.66	37.6	38.21
730	52.7	-2.78	-0.87	-3.02	-0.87	-26.7	1.91	37.16	37.69
740	56.88	-2.45	-0.59	-2.74	-0.59	-27.76	1.86	37.26	37.76
750	51.79	-2.86	-0.8	-2.95	-0.8	-28.26	2.05	37.05	37.48
760	48.23	-3.17	-1.04	-3.19	-1.04	-27.95	2.13	37	37.4
770	42.43	-3.72	-1.38	-3.53	-1.38	-25.06	2.34	36.81	37.23
780	40.23	-3.95	-1.56	-3.71	-1.56	-23.42	2.4	36.63	37.02
790	38.56	-4.14	-1.49	-3.64	-1.49	-21.57	2.65	36.91	37.3
800	36.85	-4.34	-1.55	-3.7	-1.55	-20.3	2.78	36.97	37.22
810	38.53	-4.14	-1.16	-3.31	-1.16	-18.22	2.98	37.63	37.8
820	33.9	-4.7	-1.47	-3.62	-1.47	-18.56	3.23	37.56	37.65
830	34.19	-4.66	-1.35	-3.5	-1.35	-17.31	3.31	38.01	38.02
840	29.53	-5.3	-1.88	-4.03	-1.88	-18.68	3.42	37.66	37.69
850	31.29	-5.05	-1.62	-3.77	-1.62	-17.88	3.42	37.95	37.95
860	33.61	-4.74	-1.3	-3.45	-1.3	-17.7	3.44	38.46	38.51
870	34.19	-4.66	-1.18	-3.33	-1.18	-16.92	3.48	38.56	38.57
880	38.01	-4.2	-0.56	-2.71	-0.56	-15.85	3.64	39.13	39.13
890	37.52	-4.26	-0.33	-2.48	-0.33	-15.66	3.93	39.4	39.39
900	36.8	-4.34	-0.03	-2.18	-0.03	-15.18	4.31	39.82	39.71
910	35.85	-4.46	0.07	-2.08	0.07	-15.59	4.53	40.04	39.93
920	35.23	-4.53	0.17	-1.98	0.17	-15.65	4.7	40.17	40.07
930	33.84	-4.71	0.1	-2.05	0.1	-16.6	4.8	40.36	40.22
940	33.17	-4.79	-0.03	-2.18	-0.03	-16.84	4.76	40.37	40.21
950	34.78	-4.59	0.07	-2.08	0.07	-17.92	4.66	40.51	40.23
960	33.49	-4.75	-0.2	-2.35	-0.2	-18.21	4.55	40.26	39.96
1700	51.18	-2.91	-0.2	-2.35	-0.2	-21.68	2.7	42.66	42.74
1720	48.14	-3.17	-0.28	-2.43	-0.28	-25.62	2.9	42.24	42.31
1740	53.81	-2.69	0.25	-1.9	0.25	-22.32	2.95	42.71	42.9
1760	50.59	-2.96	0.07	-2.08	0.07	-18.41	3.03	42.78	42.9
1780	50.57	-2.96	-0.05	-2.2	-0.05	-17.9	2.91	42.84	42.92
1800	50.59	-2.96	-0.19	-2.34	-0.19	-18.03	2.77	42.62	42.74
1820	51.97	-2.84	-0.17	-2.32	-0.17	-18.15	2.67	42.81	42.89
1840	54.31	-2.65	-0.02	-2.17	-0.02	-18.04	2.63	43.3	43.22
1860	52.89	-2.77	-0.27	-2.42	-0.27	-17.63	2.5	43.55	43.42
1880	53.25	-2.74	-0.08	-2.23	-0.08	-19.5	2.65	43.41	43.26
1900	51.65	-2.87	0.05	-2.1	0.05	-23.58	2.92	43.4	43.23
1920	52.6	-2.79	0.36	-1.79	0.36	-27.01	3.15	43.68	43.56
1940	53.84	-2.69	0.68	-1.47	0.68	-30.11	3.37	43.64	43.54

1960	52.55	-2.79	0.74	-1.41	0.74	-28.11	3.54	43.61	43.5
1980	55.63	-2.55	1.05	-1.1	1.05	-22.02	3.6	43.65	43.62
2000	61.95	-2.08	1.63	-0.52	1.63	-16.61	3.71	44.07	44.09
2020	66.69	-1.76	2.1	-0.05	2.1	-17.05	3.86	44.48	44.56
2040	65.44	-1.84	2.28	0.13	2.28	-19.07	4.12	44.55	44.67
2060	64.14	-1.93	2.31	0.16	2.31	-18.66	4.24	44.56	44.67
2080	61.54	-2.11	2.18	0.03	2.18	-16.49	4.29	44.51	44.7
2100	61.22	-2.13	2.11	-0.04	2.11	-15.11	4.24	44.59	44.83
2120	63.39	-1.98	2.08	-0.07	2.08	-15.22	4.06	44.86	45.02
2140	66.88	-1.75	2.17	0.02	2.17	-17.27	3.92	44.8	44.9
2160	68.13	-1.67	1.96	-0.19	1.96	-19.72	3.63	44.83	44.89
2180	73.43	-1.34	2.04	-0.11	2.04	-18.1	3.38	45.06	45.22
2200	69.43	-1.58	1.51	-0.64	1.51	-17.19	3.09	45.1	45.33
2220	63.9	-1.95	0.24	-1.91	0.24	-20.01	2.19	44.99	45.17
2240	64.14	-1.93	0.01	-2.14	0.01	-26.13	1.93	45.1	45.21
2260	61.04	-2.14	0.29	-1.86	0.29	-21.19	2.44	45.29	45.37
2280	59.6	-2.25	0.29	-1.86	0.29	-20.09	2.54	45.38	45.47
2300	57.94	-2.37	0.14	-2.01	0.14	-22.16	2.51	45.37	45.49
2320	53.27	-2.73	0.13	-2.02	0.13	-20.03	2.86	45.55	45.69
2340	56.55	-2.48	0.83	-1.32	0.83	-16.22	3.3	45.87	46
2360	58.07	-2.36	1.05	-1.1	1.05	-16.03	3.41	46.03	46.21
2380	54.24	-2.66	0.6	-1.55	0.6	-16.78	3.26	46.06	46.2
2400	55.25	-2.58	0.82	-1.33	0.82	-17.52	3.4	46.16	46.3
2420	52.3	-2.81	0.87	-1.28	0.87	-20.45	3.69	46.15	46.32
2440	61.45	-2.11	1.59	-0.56	1.59	-22.11	3.71	46.52	46.56
2460	68.68	-1.63	1.91	-0.24	1.91	-19.16	3.55	46.82	46.89
2480	70.41	-1.52	1.97	-0.18	1.97	-18.89	3.49	47.04	47.22
2500	73.21	-1.35	2.22	0.07	2.22	-20.64	3.57	46.91	47.08
2520	70.59	-1.51	2.18	0.03	2.18	-20.21	3.7	46.62	46.75
2540	71.17	-1.48	2.11	-0.04	2.11	-17.77	3.58	46.69	46.75
2560	73.59	-1.33	2.18	0.03	2.18	-18.62	3.51	46.78	46.83
2580	75.22	-1.24	2.39	0.24	2.39	-20.56	3.62	46.77	46.83
2600	76.62	-1.16	2.54	0.39	2.54	-19.58	3.7	46.9	46.97
2620	81.68	-0.88	2.74	0.59	2.74	-17.47	3.62	47.28	47.32
2640	75.73	-1.21	2.28	0.13	2.28	-15.4	3.48	47.26	47.33
2660	70.71	-1.5	2	-0.15	2	-15.31	3.51	47.07	47.11
2680	75.49	-1.22	2.5	0.35	2.5	-16.06	3.73	47.43	47.5
2700	72.51	-1.4	2.41	0.26	2.41	-14.84	3.81	47.58	47.8
2720	69.53	-1.58	2.22	0.07	2.22	-15.45	3.8	47.49	47.74
2740	66.23	-1.79	2.03	-0.12	2.03	-16.44	3.82	47.45	47.61
2760	65.83	-1.82	2.07	-0.08	2.07	-17.27	3.88	47.58	47.67
2780	62.85	-2.02	2.21	0.06	2.21	-17.94	4.23	47.56	47.67
2800	58.17	-2.35	2.02	-0.13	2.02	-18.08	4.37	47.39	47.52
2820	56.73	-2.46	1.94	-0.21	1.94	-19.81	4.4	47.65	47.63

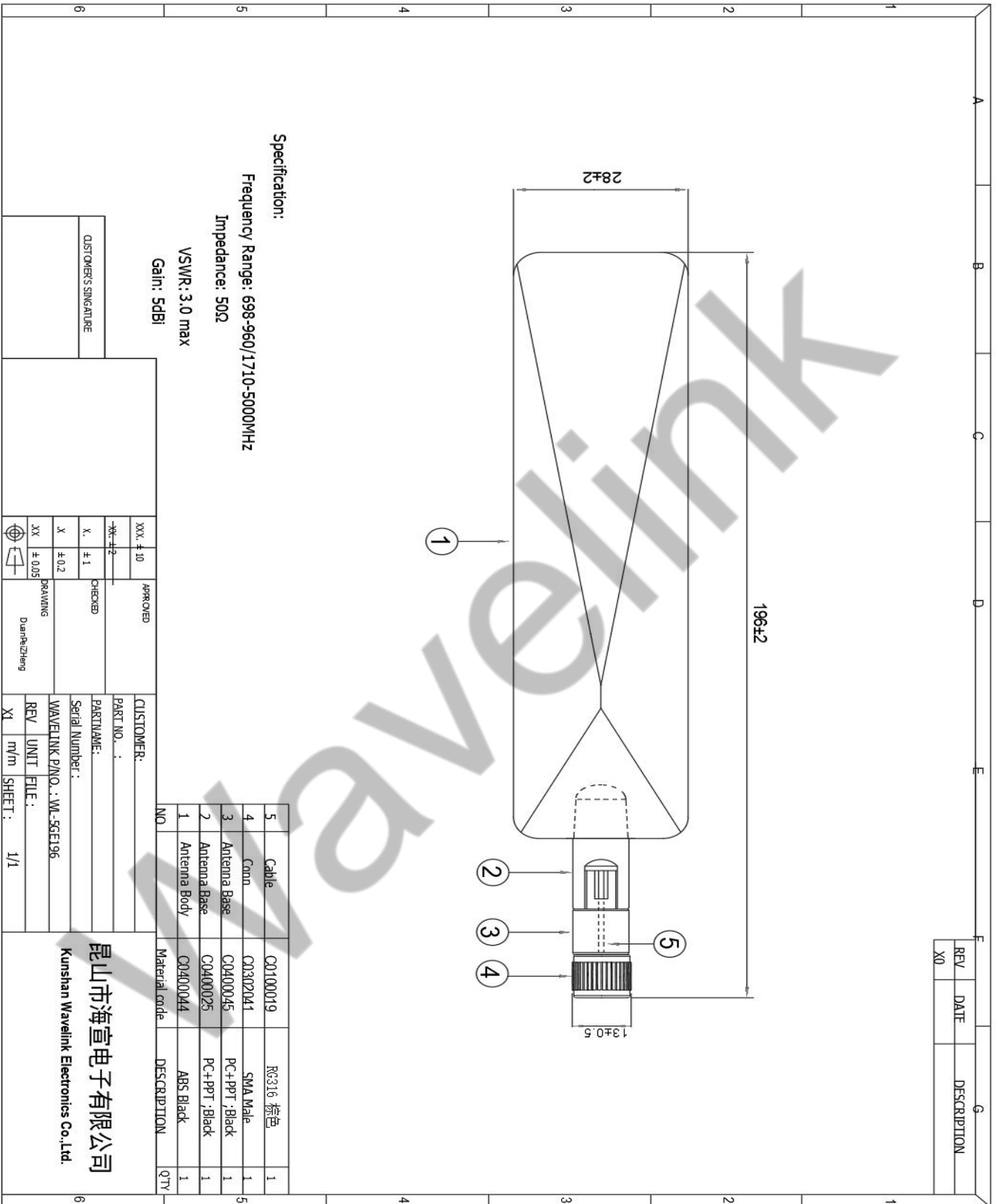
2840	57.09	-2.43	1.74	-0.41	1.74	-21.43	4.17	47.69	47.61
2860	62.28	-2.06	2.09	-0.06	2.09	-20.35	4.15	47.57	47.53
2880	67.76	-1.69	2.85	0.7	2.85	-20.97	4.54	47.86	47.8
2900	65.63	-1.83	3.06	0.91	3.06	-24.57	4.89	47.88	47.81
2920	67.28	-1.72	3.59	1.44	3.59	-26.19	5.32	48.19	48.13
2940	67.63	-1.7	3.94	1.79	3.94	-19.01	5.64	48.2	48.16
2960	69.55	-1.58	4.22	2.07	4.22	-20.45	5.8	48.12	48.1
2980	71.35	-1.47	4.29	2.14	4.29	-21.22	5.76	48.3	48.23
3000	70.92	-1.49	4.09	1.94	4.09	-22.36	5.58	48.13	47.93
3020	72.06	-1.42	4.06	1.91	4.06	-23.67	5.48	48.05	47.82
3040	70.52	-1.52	4.02	1.87	4.02	-21.44	5.54	48	47.86
3060	78.76	-1.04	4.68	2.53	4.68	-17.31	5.72	48.29	48.3
3080	83.08	-0.8	5.07	2.92	5.07	-15.19	5.88	48.29	48.35
3100	82.86	-0.82	4.97	2.82	4.97	-15.58	5.78	48.12	48.14
3120	79.93	-0.97	4.63	2.48	4.63	-16.45	5.6	48.16	48.21
3140	79.93	-0.97	4.45	2.3	4.45	-17.23	5.42	48.27	48.47
3160	79.36	-1	4.34	2.19	4.34	-21.95	5.34	48.26	48.46
3180	81.75	-0.88	4.33	2.18	4.33	-22.04	5.2	48.27	48.41
3200	83.59	-0.78	4.2	2.05	4.2	-20.47	4.98	48.4	48.49
3220	71.16	-1.48	3.52	1.37	3.52	-20.32	4.99	48.01	48.07
3240	83.34	-0.79	4.21	2.06	4.21	-18.26	5	48.89	48.99
3260	77.16	-1.13	3.59	1.44	3.59	-18.33	4.72	48.54	48.65
3280	82.06	-0.86	3.7	1.55	3.7	-19.6	4.56	48.95	48.93
3300	70.47	-1.52	3.06	0.91	3.06	-18.09	4.58	48.62	48.59
3320	68.36	-1.65	2.86	0.71	2.86	-16.47	4.51	48.9	48.9
3340	64.12	-1.93	2.56	0.41	2.56	-15.47	4.49	48.51	48.52
3360	81.17	-0.91	3.67	1.52	3.67	-14.65	4.58	49.28	49.32
3380	78.84	-1.03	3.73	1.58	3.73	-15.73	4.76	48.96	48.89
3400	85.07	-0.7	4.21	2.06	4.21	-17.61	4.92	49.2	49.08
3420	86.25	-0.64	4.4	2.25	4.4	-19.49	5.05	49.16	49.04
3440	84.08	-0.75	4.29	2.14	4.29	-17.76	5.04	49.05	48.94
3460	81.62	-0.88	4.11	1.96	4.11	-17.59	4.99	49.11	49.01
3480	84.67	-0.72	4.15	2	4.15	-17.88	4.88	49.34	49.25
3500	80.92	-0.92	3.93	1.78	3.93	-18.11	4.85	49.19	49.09
3520	79.89	-0.97	3.91	1.76	3.91	-19.14	4.88	49.11	49.02
3540	74.04	-1.31	3.53	1.38	3.53	-19.03	4.84	48.9	48.8
3560	74.81	-1.26	3.57	1.42	3.57	-18.81	4.83	49.23	49.08
3580	69.13	-1.6	3.3	1.15	3.3	-19.81	4.9	49.1	48.96
3600	76.41	-1.17	3.74	1.59	3.74	-18.86	4.91	49.37	49.25
3620	66.7	-1.76	3.12	0.97	3.12	-17.57	4.88	48.73	48.63
3640	73	-1.37	3.48	1.33	3.48	-17.16	4.85	49.26	49.2
3660	69.55	-1.58	3.25	1.1	3.25	-17.57	4.82	49.38	49.37
3680	65.94	-1.81	3.12	0.97	3.12	-18.99	4.92	49.33	49.39
3700	56.44	-2.48	2.4	0.25	2.4	-20.72	4.89	49.25	49.33

3720	57.31	-2.42	2.34	0.19	2.34	-20.79	4.76	49.87	49.88
3740	54.15	-2.66	2.24	0.09	2.24	-19.97	4.9	49.37	49.4
3760	60.11	-2.21	2.87	0.72	2.87	-22	5.08	49.64	49.77
3780	56.5	-2.48	2.79	0.64	2.79	-23.56	5.27	49.52	49.6
3800	52.23	-2.82	2.54	0.39	2.54	-23.52	5.36	49.46	49.45
3820	53.61	-2.71	2.75	0.6	2.75	-22.06	5.45	49.39	49.39
3840	53.14	-2.75	2.68	0.53	2.68	-21.19	5.43	49.61	49.59
3860	51.42	-2.89	2.29	0.14	2.29	-15.33	5.18	49.56	49.55
3880	56.78	-2.46	2.21	0.06	2.21	-15.65	4.67	49.85	49.82
3900	63.64	-1.96	2.42	0.27	2.42	-15.73	4.39	50.39	50.35
3920	57.92	-2.37	1.97	-0.18	1.97	-16.56	4.34	50.09	50.04
3940	57.58	-2.4	1.86	-0.29	1.86	-17.29	4.26	50.32	50.25
3960	61.27	-2.13	1.97	-0.18	1.97	-16.25	4.1	50.5	50.47
3980	59.35	-2.27	1.7	-0.45	1.7	-16.24	3.96	50.08	50.09
4000	55.13	-2.59	1.23	-0.92	1.23	-17.54	3.82	49.89	49.9
4020	65.3	-1.85	1.67	-0.48	1.67	-17.96	3.52	50.4	50.48
4040	61.86	-2.09	1.21	-0.94	1.21	-17.45	3.3	50.32	50.48
4060	59.95	-2.22	1	-1.15	1	-17.57	3.22	50.3	50.42
4080	56.42	-2.49	0.76	-1.39	0.76	-17.86	3.24	50.18	50.27
4100	53.55	-2.71	0.6	-1.55	0.6	-17.72	3.32	50.23	50.35
4120	51.11	-2.91	0.53	-1.62	0.53	-18.27	3.45	50.83	50.93
4140	45.47	-3.42	0.44	-1.71	0.44	-19.54	3.86	50.97	51.02
4160	42.47	-3.72	0.57	-1.58	0.57	-19.73	4.29	50.28	50.29
4180	41.16	-3.86	0.72	-1.43	0.72	-20.27	4.57	49.86	49.95
4200	41.08	-3.86	0.88	-1.27	0.88	-19.72	4.75	49.73	49.85
4220	43.31	-3.63	1.35	-0.8	1.35	-17.37	4.98	50.06	50.15
4240	43.18	-3.65	1.43	-0.72	1.43	-16.96	5.07	50.12	50.21
4260	45.21	-3.45	1.51	-0.64	1.51	-17.37	4.96	50.37	50.43
4280	44.61	-3.51	1.27	-0.88	1.27	-18.93	4.78	50.5	50.52
4300	46.1	-3.36	1.29	-0.86	1.29	-21.51	4.65	50.43	50.57
4320	43.88	-3.58	0.98	-1.17	0.98	-22.58	4.55	50.35	50.58
4340	43.9	-3.58	0.75	-1.4	0.75	-20.95	4.33	50.47	50.61
4360	46.92	-3.29	0.6	-1.55	0.6	-26.01	3.89	50.95	51.05
4380	47.38	-3.24	0.92	-1.23	0.92	-19.91	4.16	51.17	51.35
4400	50.51	-2.97	1.39	-0.76	1.39	-20.22	4.35	50.78	50.98
4420	50.13	-3	1.41	-0.74	1.41	-22.42	4.41	50.62	50.81
4440	52.06	-2.84	1.68	-0.47	1.68	-22.55	4.52	50.86	51.02
4460	48.71	-3.12	1.6	-0.55	1.6	-23.65	4.72	50.54	50.71
4480	49.8	-3.03	1.82	-0.33	1.82	-26.22	4.85	50.48	50.66
4500	51.1	-2.92	2.04	-0.11	2.04	-20.81	4.95	50.71	50.75
4520	51.47	-2.88	2.18	0.03	2.18	-22.08	5.07	50.74	50.75
4540	54.71	-2.62	2.5	0.35	2.5	-19.32	5.12	51.1	51.21
4560	56.89	-2.45	2.65	0.5	2.65	-17.79	5.1	51.49	51.58
4580	53.49	-2.72	2.19	0.04	2.19	-18.43	4.91	51.1	51.23

4600	49.3	-3.07	1.81	-0.34	1.81	-19.66	4.89	50.95	51.24
4620	52.92	-2.76	2.35	0.2	2.35	-18.25	5.11	51.04	51.43
4640	54.12	-2.67	2.47	0.32	2.47	-15.35	5.14	50.76	51.16
4660	55.05	-2.59	2.34	0.19	2.34	-13	4.93	50.81	51.11
4680	57.74	-2.39	2.35	0.2	2.35	-11.45	4.73	50.83	51.06
4700	58.23	-2.35	2.39	0.24	2.39	-10.6	4.74	50.88	51.17
4720	61.91	-2.08	2.72	0.57	2.72	-10.93	4.81	51.03	51.41
4740	60.45	-2.19	2.64	0.49	2.64	-11.11	4.83	50.85	51.22
4760	59	-2.29	2.47	0.32	2.47	-10.75	4.77	50.84	51.05
4780	58.48	-2.33	2.42	0.27	2.42	-10.7	4.75	51.42	51.45
4800	57.49	-2.4	2.28	0.13	2.28	-10.98	4.68	51.35	51.4
4820	56.47	-2.48	2.04	-0.11	2.04	-11.32	4.52	50.9	51.11
4840	57.1	-2.43	2.02	-0.13	2.02	-11.78	4.46	50.94	51.12
4860	61.13	-2.14	2.3	0.15	2.3	-12	4.44	51.25	51.39
4880	59.34	-2.27	2.06	-0.09	2.06	-13.25	4.33	51.2	51.35
4900	54.8	-2.61	1.58	-0.57	1.58	-15.27	4.19	51.4	51.48
4920	59.13	-2.28	2	-0.15	2	-15.99	4.29	52.03	52.18
4940	53.29	-2.73	1.59	-0.56	1.59	-16.11	4.33	51.94	52.17
4960	48.42	-3.15	1.15	-1	1.15	-16.35	4.3	51.62	51.96
4980	45.58	-3.41	1.24	-0.91	1.24	-17.08	4.65	51.9	52.29
5000	37.4	-4.27	0.5	-1.65	0.5	-18.18	4.77	51.61	52.01

Frequency	3D	E1	E2	H
690MHz	690.000MHz 	690.000MHz E1 	690.000MHz E2 	690.000MHz H
960MHz	960.000MHz 	960.000MHz E1 	960.000MHz E2 	960.000MHz H
1710MHz	3300.000MHz 	3300.000MHz E1 	3300.000MHz E2 	3300.000MHz H
5000MHz	5000.000MHz 	5000.000MHz E1 	5000.000MHz E2 	5000.000MHz H

5 Product Size



Specification:

Frequency Range: 698-960/1710-5000MHz

Impedance: 50Ω

VSWR: 3.0 max

Gain: 5dBi

REV	DATE	DESCRIPTION
X0		

NO.	Material code	DESCRIPTION	QTY
5	C0100019	RG316 棕色	1
4	C0302041	SMA Male	1
3	C0400045	PC+PPT, Black	1
2	C0400025	PC+PPT, Black	1
1	C0400044	ABS Black	1

APPROVED XXX ± 10 -XX ± 2 X ± 1 X ± 0.2 XX ± 0.05		CHECKED DRAWING Duanhezhang	CUSTOMER: PART NO. : PARTNAME: Serial Number: WAVELINK P/NQ.: WL-56E196	CUSTOMER'S SIGNATURE
CUSTOMER:		REV: XI UNIT FILE: m/m SHEET: 1/1	Kunshan Wavelink Electronics Co., Ltd.	昆山市海宜电子有限公司 Kunshan Wavelink Electronics Co., Ltd.

6 Others

DESCRIPTION	SPECIFICATION
Temperature /Humidity cycling	<ol style="list-style-type: none"> 1, The device under test is kept for 30 mins in an environment with a temperature of -40 °C. 2, Kept for 4 Hours in an environment with a temperature of 8cthe conditions are stabilized at room temperature. 3, Parts should meet RF spec before and after test. 4, No cosmetic problem(No soldering problem;No adhesion problem of glue).
Temperature Shock	<ol style="list-style-type: none"> 1, The device under test at -40 °C ⇔ 125 °C by 100 cycles, Dwell of 30 mins, transition time between Dwell 30 secs (~ 61 mins / cycle) and each item should be measured after exposing them in normal temperature and humidity for 24 h. 2, Parts should meet RF spec before and after test. 3, No cosmetic problem(No soldering problem; No adhesion problem of glue).
High Temperature	<ol style="list-style-type: none"> 1, Temperature:125°C, time:1008 hours 2, There is no substantial obstruction to air flow across and around the samples, and the samples are not touching each other 3, Parts should meet RF spec before and after test. 4, No cosmetic problem(No soldering problem; No adhesion problem of glue).
Salt mist test	<ol style="list-style-type: none"> 1, The device under test is exposed to a spray of a 5% (by volume) resolution of NaCl in water for 2 hours. Thereafter the device under test is left for 1 week in room temperature at a relative humidity of 95%. The cycle is repeated until a total of 2 cycles have been completed. Here after the conditions are stabilized at room temperature. 2, Parts should meet RF spec before and after test. 3, No visible corrosion. Discoloration accept.